			UN 1 8 1999				Page 1 of 12
		(N)	TO IRADIMENTO	ATTY. DOCKET NO. 0942.4560001		PLICATION NO. /266,935	
	INFORMATI	FORM PTO-1449  ON DISCLOSURE STATE		APPLICANT Li et al.			
				FILING DATE March 12, 1999	GR0 163	OUP 35	
		-	<u> </u>	S. PATENT DOCUMENTS			
EXAMINER INITIAL		DOCUMENT NUMBER	DATE	NAME	CLASS	SUB-CLASS	FILING DATE
<u> </u>	AA1	4,683,202	07/28/1987	Mullis, K.B.	435	91	10/25/1985
	AB1	4,767,699	08/30/1988	Vary, C.P.H. et al.	435	6	05/02/1985
	AC1	5,545,540	08/13/1996	Mian, A.	435	91.2	01/19/1995
2	AD1	5,871,929	02/16/1999	Barnes, W.M.	435	6	07/23/1997
	AE						
	AF						
	AG						
	АН						
	AI						
	AJ						
	AK						
			FORI	EIGN PATENT DOCUMENTS			
EXAMINER INITIAL		DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUB-CLASS	TRANSLATION
Nh	AL1	wo 95/20682	08/03/1995	WIPO			Yes No
	AM1	DE 44 11 588 C1	09/28/1995	Germany	-		Abstract Yes
	AN1	DE 44 11 594 C1	12/14/1995	Germany	J o <del>cc</del>		Abstract Yes
EL	A01	EP 0 821 059 A2	01/28/1998	Europe			Yes No

OTHER (Including Author, Title, Date, Pertinent Pages, etc.)

No

No

Yes

2	AR	1	Aslanyan, V.M. et al., "Conformation and Thermal Stability of DNA in Aqueous Solutions of β-Alanine and γ-Aminobutyric Acid," Biophysics 29:615-620 (1984)
	AS	1	Baskaran, N. et al., "Uniform Amplification of a Mixture of Deoxyribonucleic Acids with Varying GC Content," Genome Research 6:633-638 (1996)
a	AT	1	Buche, A. et al., "Glycine and other amino compounds prevent chromatin precipitation at physiological ionic strength," FEBS Lett. 247:367-370 (1989)

EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to Applicant.

DATE CONSIDERED

9/27/99

AP

EXAMINER

JUN 1 8 1999 ...

FORM PTO-1449
---------------

INFORMATION DISCLOSURE STATEMENT

	APPLICATION NO. 09/266,935
APPLICANT	

FILING DATE GROUP
March 12, 1999 1635

					March 12, 1999	1635		3.5
		····			U.S. PATENT DOCUMENTS			
XAMINER NITIAL	4	DOG	CUMENT NUMBER	DATE	NAME	CLASS	SUB-CLASS	FILING DATE
****	AA		OO.IZAT NOTIBER	DATE	NARE	CLASS	30B-CLA33	FILING DATE
	AB							
· , , , , , , , , , , , , , , , , , , ,	AC							
	AD		2000.			·····		
•	AE							
	AF							
	AG							
	АН							
·····	AI							
	AJ							
	AK							
en i				F	OREIGN PATENT DOCUMENTS			
XAMINER NITIAL		DOC	CUMENT NUMBER	DATE	COUNTRY	CLASS	SUB-CLASS	TRANSLATION
	AL							Y € N
	АМ			A				Y ∈ N
	AN							Ye N
	AO							Ye N
	AP							Ye N
			OTHER (	Including Au	ithor, Title, Date, Perti	inent Pages, etc.)		
QL	AR	2	Buche, A. et Dynam. 8:601	: al., "Orgai -618 (1990)	nic Osmotic Effectors an	d Chromatin Structure,"	J. Biomol. S	truct. &
	AS	<u>2</u>	Buche, A. et Interactions	tal., "Effects, DNA and H	ct of Organic Effectors istone H1 Structures," J	on Chromatin Solubility 1. Biomol. Struct. & Dyna	<b>, DNA</b> -Histone m. 11:95-119	: н1 (1993)
2	AT	<u>2</u>	Cánovas, D. and Choline-	et al., Osmo Betaine Patl	oprotectants in Halomonas nway," J. Bacteriol. 178:	s elongata: High-Affinit :7221-7226 (1996)	y Betaine Tra	ansport System
KAMINER	1		1			DATE CONSID	<del></del>	

EXAMINER DATE CONSIDERED 9/17/99

Page 3 of 12

						ATTY. DOCKET NO. APPLICATION NO. 0942.4560001 09/266,935				
	INFORMA		PTO-1449  SCLOSURE STAT	FMENT	1	PLICANT et al.				-
						FILING DATE GROUP . March 12, 1999 1635				
					U.S. PATE	NT DOCUMENTS				
EXAMINER INITIAL DOCUMENT NUMBER DATE					NAME			CLASS	SUB-CLASS	FILING DATE
	AA									
	AB									
	AC	-		<u> </u>						
	AD		<del></del>					<u> </u>		
	AE	_						<del>                                     </del>		
	AF						<del></del>			
	AH	<del>-   -</del>					***			
	AI									
· · · · · · · · · · · · · · · · · · ·	AJ									
	AK					<u></u>				
				F	OREIGN PAT	ENT DOCUMENTS		•		
EXAMINER INITIAL		DOC	UMENT NUMBER	DATE	COUNT	RY		CLASS	SUB-CLASS	TRANSLATION
							<del></del>		GGB GEAGG	Yes
	AL									No
-	AM									Yes No
	AN									Yes No
	AO									Yes No
	AP									Yes No
			OTHER (	Including Au	thor, Titl	e, Date, Pertine	nt Pages, e	tc.)		<u>-</u>
le 1	AR	<u>3</u>	Halophile Ha	et al., "Iso alomonas elon 5801 (October	igata <b>and C</b>	d Characterization loning of the Ec	on of Salt-s toine Synth	sensitive esis Genes	Mutants of th	e Moderate Chem.
	AS	<u>3</u>	trehalose ar	et al., "The nd its applic January 1998	cation for	ization and ther the synthesis of	moactivation f full lenge	on of ther	molabile enzy Proc. Natl. Ad	mes by cad. Sci. USA
Eh	AT	3	Chambers, S. Molecule for	T. et al., Escherichia	"Dimethylt coli," J.	hetin Can Substi Bacteriol, 169:4	tute for Gl 4845-4847 (*	ycine Bet 1987)	aine as an Os	moprotectant
EXAMINER	A	Cue	Krly				D	ATE CONSID	DERED 9/2	7/99
EXAMINER: I	nitial if	refere	ence considere	ed, whether o	or not cita	tion is in confo	ormance with	MPEP 609	. Draw line	through

FORM PTO-1449

ATTY. DOCKET NO. 0942.4560001	APPLICATION NO. 09/266,935	
APPLICANT Li et al.		
ELLING DATE	CROUD	

	INFORMAT	ION DIS	SCLOSURE STATI	EMENT	L1 et di.		·	- <del></del>	
					FILING DATE March 12, 1999		GROUP 1635		-
			<del></del>		U.S. PATENT DOCUMENTS				
EXAMINER INITIAL		DOC	UMENT NUMBER	DATE	NAME	CLA	ASS	SUB-CLASS	FILING DATE
	AA								
	AB								
	AC								
	AD		_						
	AE			ļ					
	AF			ļ				<u> </u>	
	AG								12.5
	AH								
	AI	-	<u></u>						
	AJ							<u> </u>	
	AK			_					
				F	OREIGN PATENT DOCUMENTS	<u> </u>			<u> </u>
EXAMINER INITIAL		DOCI	UMENT NUMBER	DATE	COUNTRY	CLA	ASS	SUB-CLASS	TRANSLATION
	AL						j		Yes No
		THE							Yes
	AM								No Yes
	AN								No
	AO								Yes No
	AP								Yes No
	*	<b>,</b>	OTHER (	Including Au	thor, Title, Date, Perti	nent Pages, etc.	)		
1 Ch	AR	4			tic Effectors and DNA Sti J Biomol Struct & Dy			ne on Precip	oitation of DNA
	AS	4	Flock, S. e J. 70:1456-		ectric Constant and Ionio	c Strength Effect	s on DNA	Precipitat	i <b>on,"</b> Biophys.
Ch	АТ	4			NMR Study of the Effect (71:1519-1529 (1996)	of Organic Osmoly	tes on [	ONA Counteri	ion
EXAMINER		)		<del> </del>		DATE	CONSIDE	RED 0 12	21.

FORM PTO-1449

## INFORMATION DISCLOSURE STATEMENT

ATTY. DOCKET NO. 0942.4560001	APPLICATION NO. 09/266,935
APPLICANT	

GROUP

1635

Li et al.

FILING DATE March 12, 1999

	<del> </del>			U.S. PATENT DOCUMENTS	1 1033		<del> </del>
EXAMINER	<u> </u>			U.S. PATENT DOCUMENTS			]
INITIAL		DOCUMENT NUMBE	R DATE	NAME	CLASS	SUB-CLASS	FILING DATE
	AA						
	AB						
_	AC						M. T.
	AD						450 500 000
	AE						
	AF						
	AG						
- <u>.</u>	AH						
	AI						
	AJ						
	AK						
	<u> </u>	1	· · · · · · · · · · · · · · · · · · ·	FOREIGN PATENT DOCUMENTS	Mr. in .		
XAMINER NITIAL		DOCUMENT NUMBE	DATE	COLUTRY	81.400	CUR CLASS	
ATTIAL		DOCUMENT NUMBE	R DATE	COUNTRY	CLASS	SUB-CLASS	TRANSLATION
	AL		ļ				
	AM	N/N	100			.341	
	ANI						
	AN						
	AO		ļ				
	AP				L. M.C.		
		OTHER	(Including A	uthor, Title, Date, Pertinen	t Pages, etc.)		
Zq.	AR	5 Frackman, (February	s. et al., "B 1998)	etaine and DMSO: Enhancing A	gents for PCR <b>,"</b> <i>Pro</i>	mega Notes 65	:27-29
	AS	5 Gouesbet, Gene ousA	<b>G.</b> et al <b>., "C</b> , <b>"</b> J. Bacterio	haracterization of the <i>Erwin</i> 7. 178 <b>:447-455 (1996)</b>	ia chrysanthemi <b>Osm</b> o	oprotectant T	ransporter
The	АТ	5 Hengen, P (June 199	.N., "Optimizi 7) (	ng multiplex and LA-PCR with	ı betaine," Trends B	iochem. Sci.	22 <b>:225-226</b>
XAMINER		Le Ril	(m. (a-165-16-1))		DATE CONSI	F0 # 42 FM	

FORM PTO-1449

 ATTY. DOCKET NO. 0942.4560001	APPLICATION NO. 09/266,935
APPLICANT Li et al.	
FILING DATE	GROUP

	INT ORMAT	TON DI	SCLUSURE STAT	<u> </u>		FILING DATE March 12, 1999		GROUF 1635		
					U.S.	PATENT DOCUMENTS	<del></del>	-		
EXAMINER INITIAL		DOC	CUMENT NUMBER	DATE	٨	IAME	CL	ASS	SUB-CLASS	FILING DATE
	AA									
	AB									
	AC									
	AD							<del></del>		
	AE									
	AF				<u> </u>					
	AG									
	AH			ļ		<del></del>				<u> </u>
	AI									
	AJ	_								
	AK									
				F	OREIGN	PATENT DOCUMENTS	<u> </u>			r
EXAMINER INITIAL		DOC	UMENT NUMBER	DATE		COUNTRY	CL	ASS	SUB-CLASS	TRANSLATION
	AL									Yes No
	АМ									Yes No
	AN									Yes No
	AO									Yes No
	AP						· · · · · · · · · · · · · · · · · · ·			Yes No
		!	OTUED A	(Including Au	ıthon	Title, Date, Pertinent F	esas eta	`		1
Cu	AR	6	Henke, W. e		ine imp	oroves the PCR amplifica	-		NA sequences,	" Nucl. Acids
	AS	6	Hogrefe, H. Stratagene	et al <b>., "No</b> Strategies 10	vel PCF 9:93-96	R Enhancing Factor Impro (August 1997)	ves Perform	nance c	of <i>Pfu</i> <b>DNA</b> Pol	ymerase,"
M	AT	<u>6</u>				of Compensatory Solutes mp_Biochem. Physiol. 117				al
EXAMINER	<b>\</b>	re	Rile				DATE	CONSI	DERED 91	27/99

				\	8 1999				
<u></u>	<del></del>		-	ATENTE [			T		Page 7 of 12
		FORM	DTO 4//O		ATTY. DOCKET NO. APPLICATION NO. 0942.4560001 09/266,935				
			PTO-1449		APPLICANT Li et al.				
	INFORMAT	ION DIS	SCLOSURE STATE	<u>EMENT</u>	FILING DATE		GROUP		
					March 12, 1999		1635		
	<del>-   -</del>	<del>-</del> T		U T	.S. PATENT DOCUMENTS	<del></del>		<del></del>	
EXAMINER INITIAL		DOCI	JMENT NUMBER	DATE	NAME	l cı	ASS	SUB-CLASS	FILING DATE
	AA							TOOD GENOS	TIETAG DATE
	AB								
	AC								
	AD							-	
	AE	-				1/4			
	AF AG	_							
	AH								
	AI								
	AJ								<del></del>
	AK								
		-1		FOR	EIGN PATENT DOCUMENTS				
EXAMINER INITIAL		DOCL	MENT NUMBER	DATE	COUNTRY	CL	ASS	SUB-CLASS	TRANSLATION
	AL				14				Yes No
	TILLE								Yes
	AM					- 1-			No
	AN								Yes No
	100								Yes
	AO	<del> </del>							No
	АР								Yes No
	<u> </u>	1	OTHER (	Including Auth	or, Title, Date, Pert	inent Pages, etc.	)		-
JA -	AR	7	DNA Double H	lelix," Molekui	Effect of Low-molecula lyarnaya Biologiya 9: <b>7</b> 4	42-746 (1975) +			
	AS	<u>7</u>	Conformation (Document AR	et al., "The	Use of Cosolvents to	Enhance Amplifica	aya Bio	logiya 9:742-	ase Chain
EXAMINER	Je	re	(1995); Riley				CONSID		7/99

FORM	PTO-1449	

## INFORMATION DISCLOSURE STATEMENT

_			Page 8 of 12
11	0942.4560001	APPLICATION NO. 09/266,935	
	APPLICANT Li et al.		
	FILING DATE	GROUP	1

					FILING DATE March 12, 1999		GROU! 1635	P	
					U.S. PATENT DOCUMENTS				
EXAMINER									
INITIAL	AA	DOC	CUMENT NUMBER	DATE	NAME		CLASS	SUB-CLASS	FILING DATE
	AB								
	AC			y					
	AD								
	AE								
	AF								
	AG							-	
	АН								
	AI								
	AJ	_							
	AK								
		т-			FOREIGN PATENT DOCUMENTS				
EXAMINER INITIAL		DOC	CUMENT NUMBER	DATE	COUNTRY		CLASS	SUB-CLASS	TRANSLATION
	AL								Yes
		347						155	No Yes
-	AM	1							No
	AN								Yes No
	AO	_							Yes No
	AP							,	Yes
	AP	!	OTHER (	Including A	uthon Title Date Destinant	- Danas	· · · ·		No
		<u> </u>	OTHER (	including A	uthor, Title, Date, Pertinent	t Pages, et	<u>(c.)</u>	-	
le	AR	8	Le Rudulier,	, <b>D.</b> et al <b>.,</b>	"Molecular Biology of Osmor	egulation,'	Science	<i>224</i> :1064-106	8 (1984) .
	AS	8	Li, CJ. et Phytochem. 4	: al., "Nonp 2:443-445 (	rotein Amino Acids from Seed 1996) ,	s of Cycas	circinal	is <b>and</b> Phaseo	lus vulgaris,"
M	AT	<u>8</u>	Streptomyces	Strains and	t, "Induction of Synthesis od Their Effect on Escherichia 178:385-395 (1996):	of Tetrahydr a coli in Re	ropyrimid esponse t	ine Derivativo Osmotic and	res in d Heat
EXAMINER	de	re	Ricey			DA	TE CONSI	DERED 9/2	7199

			_	-\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\	*	<u> </u>				Page 9 of 12
		FORM	L DTO 4//0		TE THAD! 09	TY. DOCKET NO. 42.4560001			ICATION NO. 66,935	
	LUEODMAT		I PTO-1449		APPLICANT Li et al.					
	INFORMAT	TUN D	ISCLOSURE STAT	<u>EMENI</u>	FIL	ING DATE ch_12, 1999		GROUP 1635		
					U.S. PATE	NT DOCUMENTS		······································		
EXAMINER INITIAL		DOC	CUMENT NUMBER	DATE	NAME		CL	.ASS	SUB-CLASS	FILING DATE
	AA									
	AB	100							HIT.	
<u> </u>	AC									
	AD									
	AE							··· ,		
	AF									
	AG									
	AH	<del>-</del> -								
	AI			<del> </del>						
	AJ	-								
-	AK									
	1	T			FOREIGN PAT	ENT DOCUMENTS				
EXAMINER INITIAL		DOC	CUMENT NUMBER	DATE	COUNT	RY	CL	ASS	SUB-CLASS	TRANSLATION
	AL						ļ			Yes No
	АМ									Yes
	AN									Yes
	AO									Yes No
	AP							·		Yes
<del>-</del>			OTHER (	Including A	uthor Title	e, Date, Pertinen	t Pages etc	`		No
M	AR	9		and C. Hous	ssier, "Ther	modynamics of Cat			densation," o	1. Biomol.
	AS	9	Mytelka, D.S with a trinu	S. and M.J. ucleotide co	Chamberlin, onsensus," A	<b>"Analysis and su</b> Jucl. Acids Res. 2	uppression of 4:2774-2781 (	DNA po 1996)	lymerase paus	es associated
M	AT	9	Randall, K.	et al., "Na ons," Biochi	atural and s im Biophys.	yntheic betaines Acta 1291:189-194	counter the e	ffects	of high NaCl	and urea
EXAMINER		lue	Rela		****		DATE	CONSI	DERED 9/2	7199
EXAMINER: I	nitial if	refer	ence considere	ed, whether	or not cita	tion is in confor	mance with MP	EP 609	. Draw line	through
U,	111 001	ii VI IIId	nce and not co	ms ruered.	The tude cop	y of this form wi	in next commu	micati	on to Applica	nt.

•				JUN 1 8 1999				
		50DM DXO 4//0		ATTY. DOCKET NO. 0942.4560001		PLICATION NO. 1/266,935	Page 10 of 12	
	INFORMAT	FORM PTO-1449  ION DISCLOSURE STAT	<u>EMENT</u>	APPLICANT Li et al.				
<del></del>				FILING DATE March 12, 1999	•	OUP 35		
			·	U.S. PATENT DOCUMENTS				
EXAMINER INITIAL		DOCUMENT NUMBER	DATE	NAME	CLASS	SUB-CLASS	FILING DATE	
	AA							
	AB							
	AC							
	AD							
	AE							
	AF							
	AG							
<u> </u>	AH							
	AI							
	AJ							
	AK							
				FOREIGN PATENT DOCUMENTS	· · · · · · · · · · · · · · · · · · ·		•	
EXAMINER INITIAL		DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUB-CLASS	TRANSLATION	
·	AL						Yes No	
							Yes	

No Yes AN No Yes AO No Yes AP No OTHER (Including Author, Title, Date, Pertinent Pages, etc.)

Randall, K. et al., "Accumulation of natural and synthetic betaines by a mammalian renal cell line," Biochem. Cell Biol. 74:283-287 (1996) M <u>10</u> AR Rajendrakumar, C.S.V. et al., "DNA helix destabilization by proline and betaine: possible role in <u>10</u> AS the salinity tolerance process," FEBS Lett. 410:201-205 (June 1997) Rees, W. A. et al., "Betaine Can Eliminate the Base Pair Composition Dependence of DNA Melting," <u>10</u> AT Biochemistry 32:137-144 (1993)

**EXAMINER** 

Kiley

DATE CONSIDERED 9/27/99

	<del></del>				TEN METS	<i>(</i>			_Page 11 of 12
					ATTY. DOCKET NO.			CATION NO.	. 430 11 01 12
		FORM	PTO-1449		0942.4560001 APPLICANT	· · · · · · · · · · · · · · · · · · ·	1 09/26	66,935	
	INFORMA	TION DI	SCLOSURE STAT	<u>EMENT</u>	Li et al.		<del></del>		
					FILING DATE March 12, 1999		GROUP 1635	•	
				U.S	S. PATENT DOCUMENTS		1 1033		
EXAMINER		0.00	NEUT MUNDED				•		
INITIAL	AA	DOC	CUMENT NUMBER	DATE	NAME	CL.	ASS	SUB-CLASS	FILING DATE
·	AB		<del></del>						
	AC		*						
1	AD								
	AE	ļ							
	AF								
<u> </u>	AG		<u> </u>						
	AH	_		(i		7			
	AJ								
	AK						· <u>-</u>		
	· · · · · · · · · · · · · · · · · · ·			FORE	IGN PATENT DOCUMENTS				
EXAMINER									
INITIAL		DOC	UMENT NUMBER	DATE	COUNTRY	CLA	ASS	SUB-CLASS	TRANSLATION
	AL								Yes No
									Yes
	AM						-200		No
	AN								Yes No
									Yes
	AO								No
	AP								YesNo
	<u> </u>		OTHER (	Including Author	r, Title, Date, Pertinen	nt Pages, etc.)	)		2000
<i>M</i>	AR	11	Varadaraj, k amplificatio (1994)	C. and D.M. Skin	ner, "Denaturants or cos DNA using genetically o	solvents impro engineered DNA	ve the polyme	specificity erases," <i>Gene</i>	of PCR 140:1-5
	AS	11	Weissenstein Avoiding Fal	ner, T. and J.S. se Negatives in	Lanchbury, "Strategy fo PCR Typing," BioTechniq	or Controlling ques 21:1102-11	Prefer 108 (19	ential Ampli 96)	fication and
Ch	АТ	11	Woodford, K. termination	et al., "The U in PCR and PCR	se of K*-free buffers el sequencing," Nucl. Acids	iminates a com Res. 23:539 (	mon ca 1995)	use of premat	ure chain
EXAMINER	Te	200	Kilen		A CONTRACTOR OF THE CONTRACTOR	DATE	CONSID	ERED C/17	7/99
EXAMINER: I	nitial if	refer	ence considere	d, whether or n	ot citation is in confor	rmance with MPF	EP 609	Draw line	through
citation if	not in co	nforma	nce and not co	ensidered. Incl	ude copy of this form wi	ith next commun	nicatio	on to Applica	nt.

Page 12 of 12

## FORM PTO-1449

INFORMATION	DISCLOSURE	STATEMENT

EXAMINER

ATTY. DOCKET NO. 0942.4560001	APPLICATION NO. 09/266,935	
APPLICANT Li et al.		
FILING DATE March 12, 1999	GROUP 1635	

DATE CONSIDERED

<del></del>				<del></del>	U.S. PATENT DOCUMENTS			
EXAMINER INITIAL		DO	CUMENT NUMBER	DATE	NAME	CLASS	SUB-CLASS	FILING DATE
	AA						TOO OLKSO	TIETRO DATE
	АВ							
	AC							
	AD							_
	AE							
	AF						7	
	AG							
	НА							
	AI						1	
	AJ							
	AK							
					FOREIGN PATENT DOCUMENTS	***		
EXAMINER							i i	
INITIAL		DOC	CUMENT NUMBER	DATE	COUNTRY	CLASS	SUB-CLASS	TRANSLATION
	AL							Yes
								No
	AM							Yes No
								Yes
	AN							No
	AO						10 0 = 5	Yes
· · · · · · · · · · · · · · · · · · ·								No
	AP					(		Yes No
***		1 . 4 .	OTHER (	Including Au	ithor, Title, Date, Pertin	nent Pages, etc.)		-
M	AR	12			3 Sigma Chemical Company (		10, pp. 1028-	1034
	AS	12	Derwent Work Accession No	ld Patents II	ndex, English language abs /199543	stract of DE 44 11 588	C1 (Document	AM1), WPI
Ch	АТ	12	Derwent Worl	d Patents II	ndex, English language abs /199603	stract of DE 44 11 594	C1 (Document	AN1), WPI